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(54) **PROGRESSIVE BACKGROUND UPLOADING**

(75) Inventors: **Dirk John Stoop**, Menlo Park, CA (US); **Paul Carduner**, Menlo Park, CA (US); **Hamilton Chong**, Saratoga, CA (US); **Alex Li**, Mountain View, CA (US)

(73) Assignee: **Facebook, Inc.**, Menlo Park, CA (US)

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G06F 3/01	(2006.01)
G06F 15/16	(2006.01)
H04L 29/08	(2006.01)

(52) **U.S. Cl.**

CPC ***H04L 67/02*** (2013.01); ***H04L 67/2828*** (2013.01); ***H04W 4/18*** (2013.01); *H04L 67/2842* (2013.01)

(58) **Field of Classification Search**

CPC ... H04L 67/2828; H04L 67/322; G06F 15/16; G06F 3/01; G06F 17/3089

USPC 709/219

See application file for complete search history.

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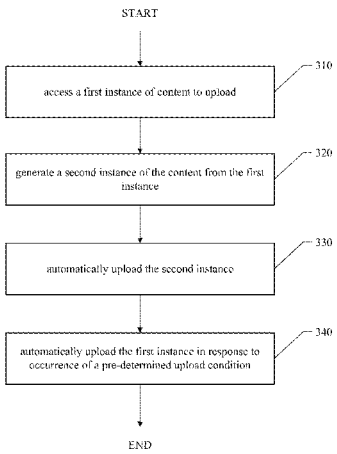
Primary Examiner — Kevin Bates
Assistant Examiner — Mark A Scott
(74) *Attorney, Agent, or Firm* — Baker Botts L.L.P.

(57) **ABSTRACT**

In one embodiment, a method includes accessing a first instance of content to be uploaded to a server, generating a second instance of the content from the first instance, automatically uploading to the server the second instance of the content, and automatically uploading to the server the first instance of the content in response to occurrence of a pre-determined upload condition. The first instance has a first file size and the second instance has a second file size that is smaller than the first file size. The upload of the second instance makes the content available for access at least in part by one or more second users at an immediate point in time. The upload of the first instance of the content makes the content available for access by the second users in an original version.

20 Claims, 8 Drawing Sheets



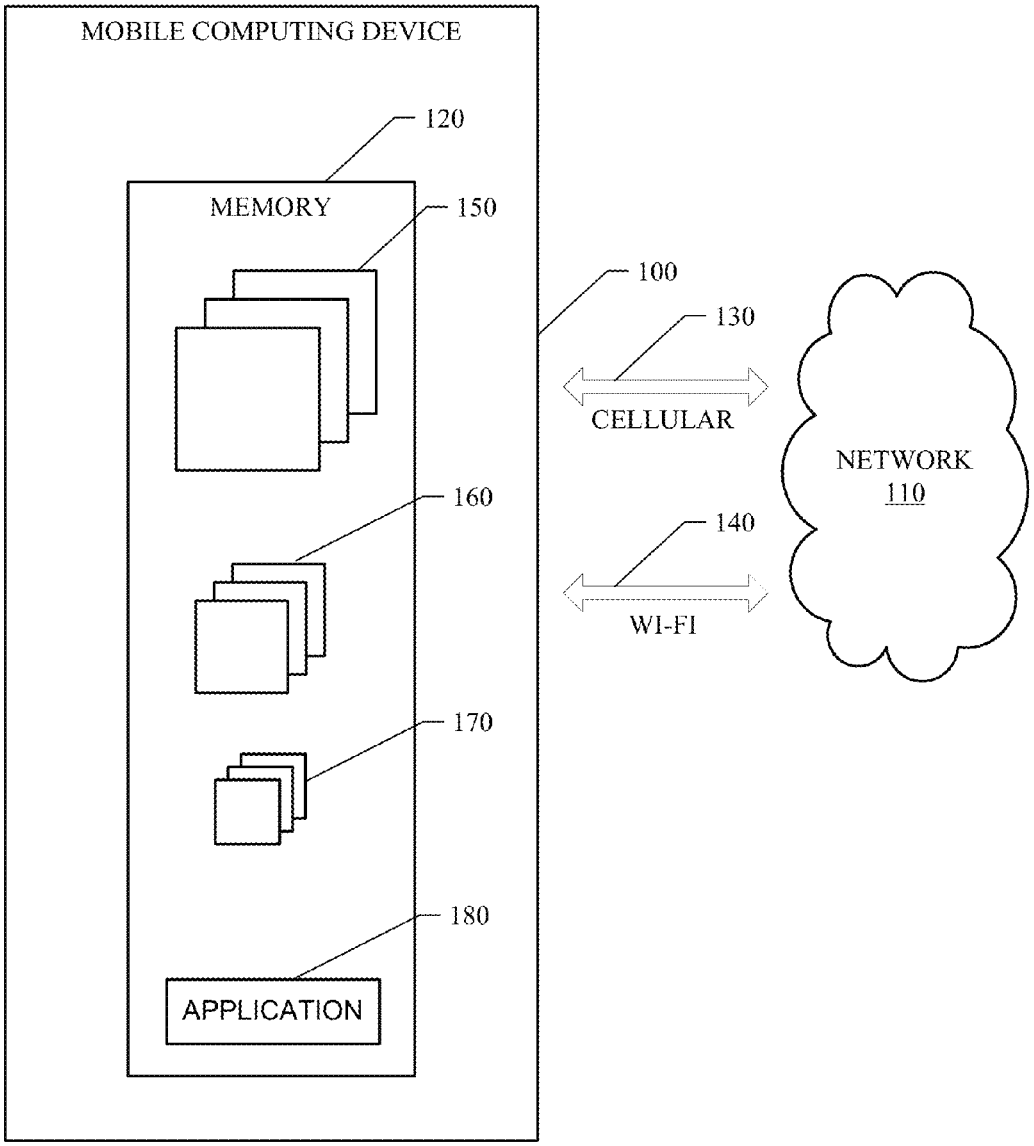

MOBILE COMPUTING DEVICE
120
MEMORY
150
160
170
180
APPLICATION
100
130
CELLULAR
140
WI-FI
NETWORK
110

FIG. 1

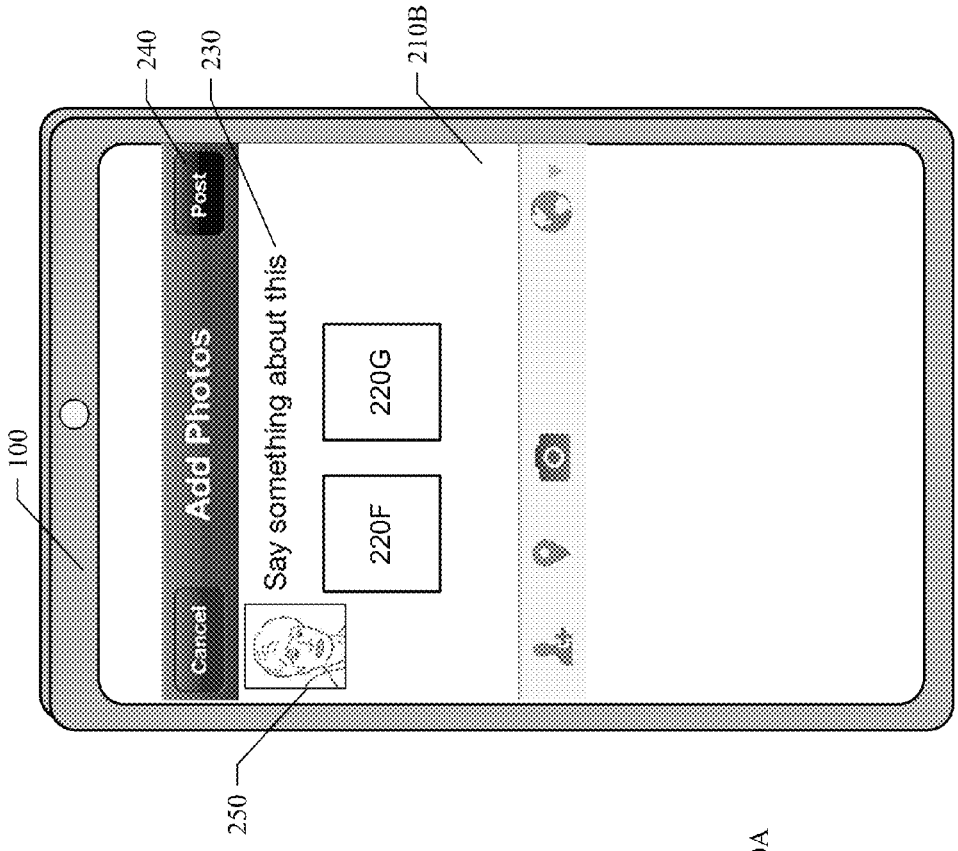

240
230
210B
100
Post
Add Photos
Cancel
Say something about this
220F
220G
250

FIG. 2B

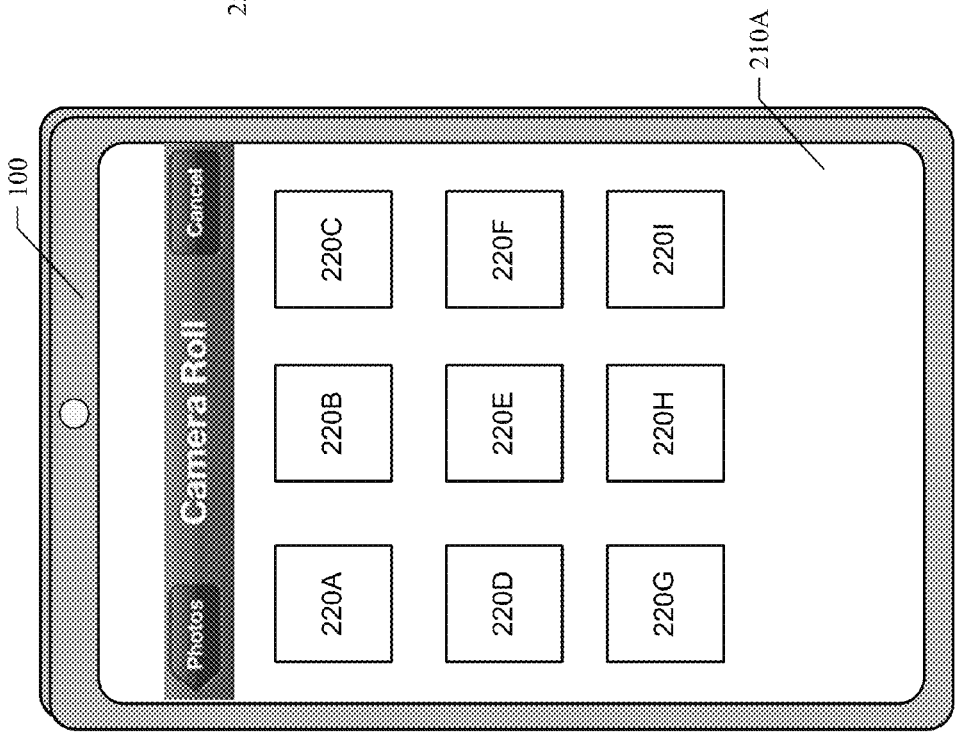

210A
100
Cancel
Camera Roll
Photos
220A
220B
220C
220D
220E
220F
220G
220H
220I

FIG. 2A

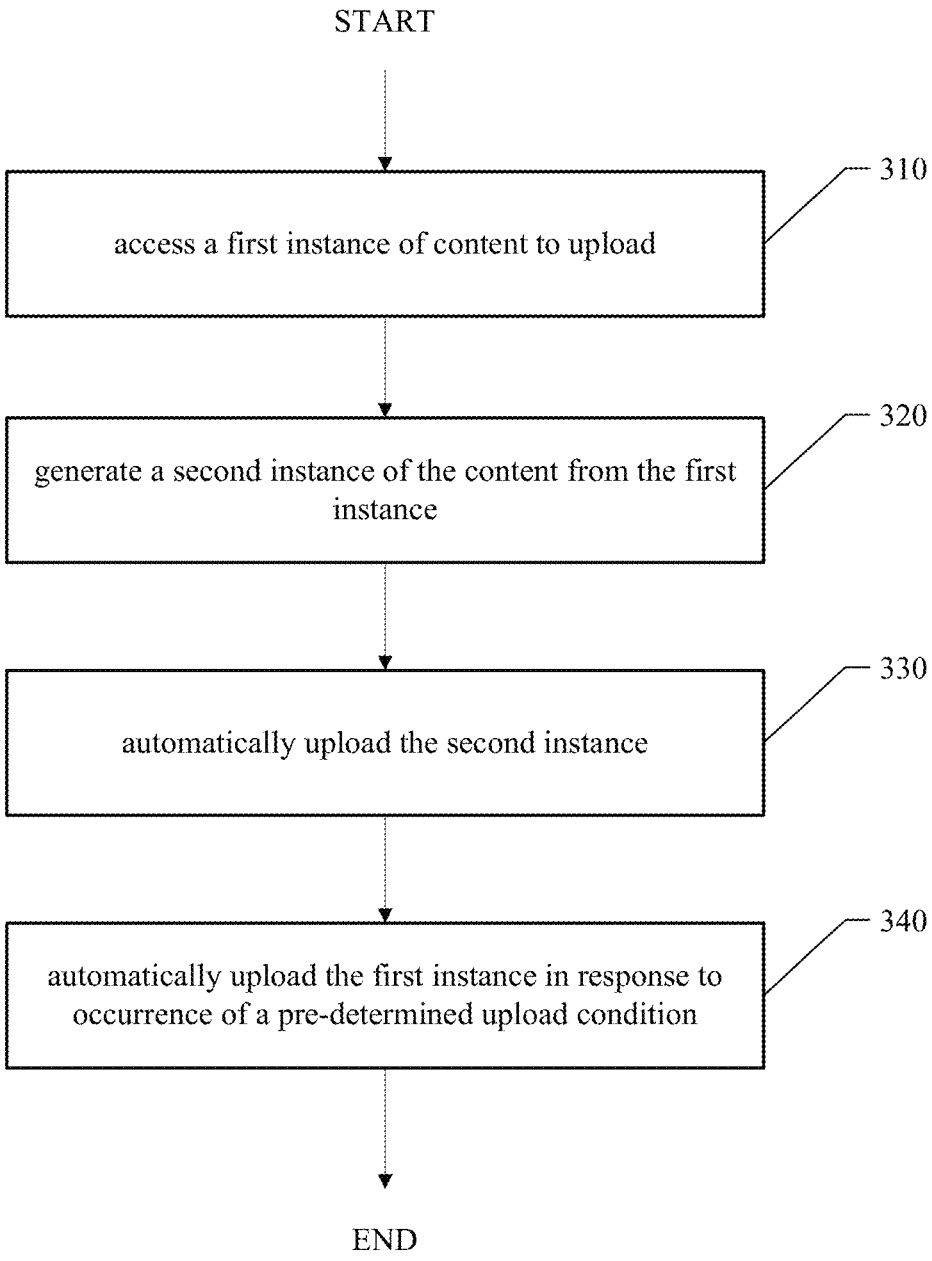

START
access a first instance of content to upload
310
generate a second instance of the content from the first instance
320
automatically upload the second instance
330
automatically upload the first instance in response to occurrence of a pre-determined upload condition
340
END

FIG. 3

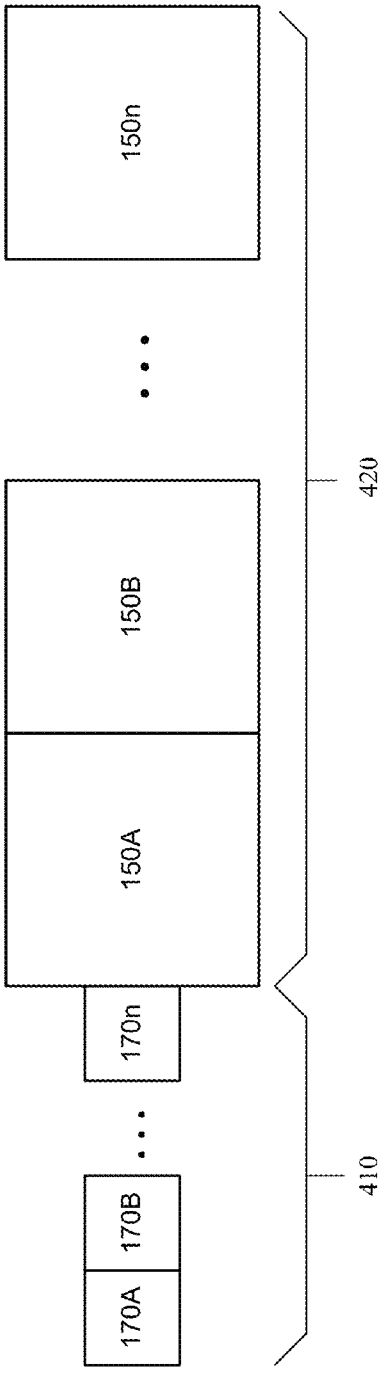

170A
170B
170n
150A
150B
150n
410
420

FIG. 4A

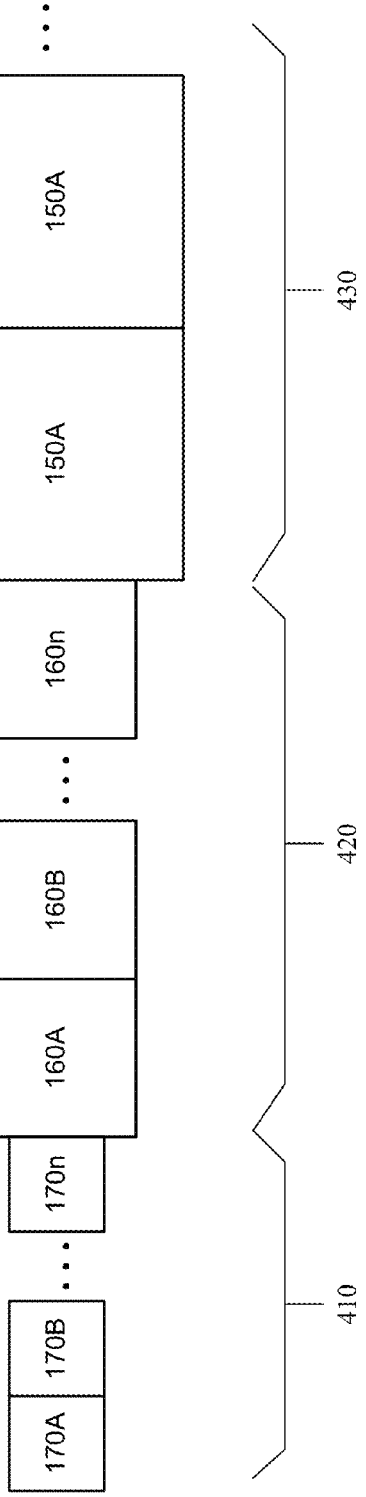

170A
170B
170n
160A
160B
160n
150A
150A
410
420
430

FIG. 4B

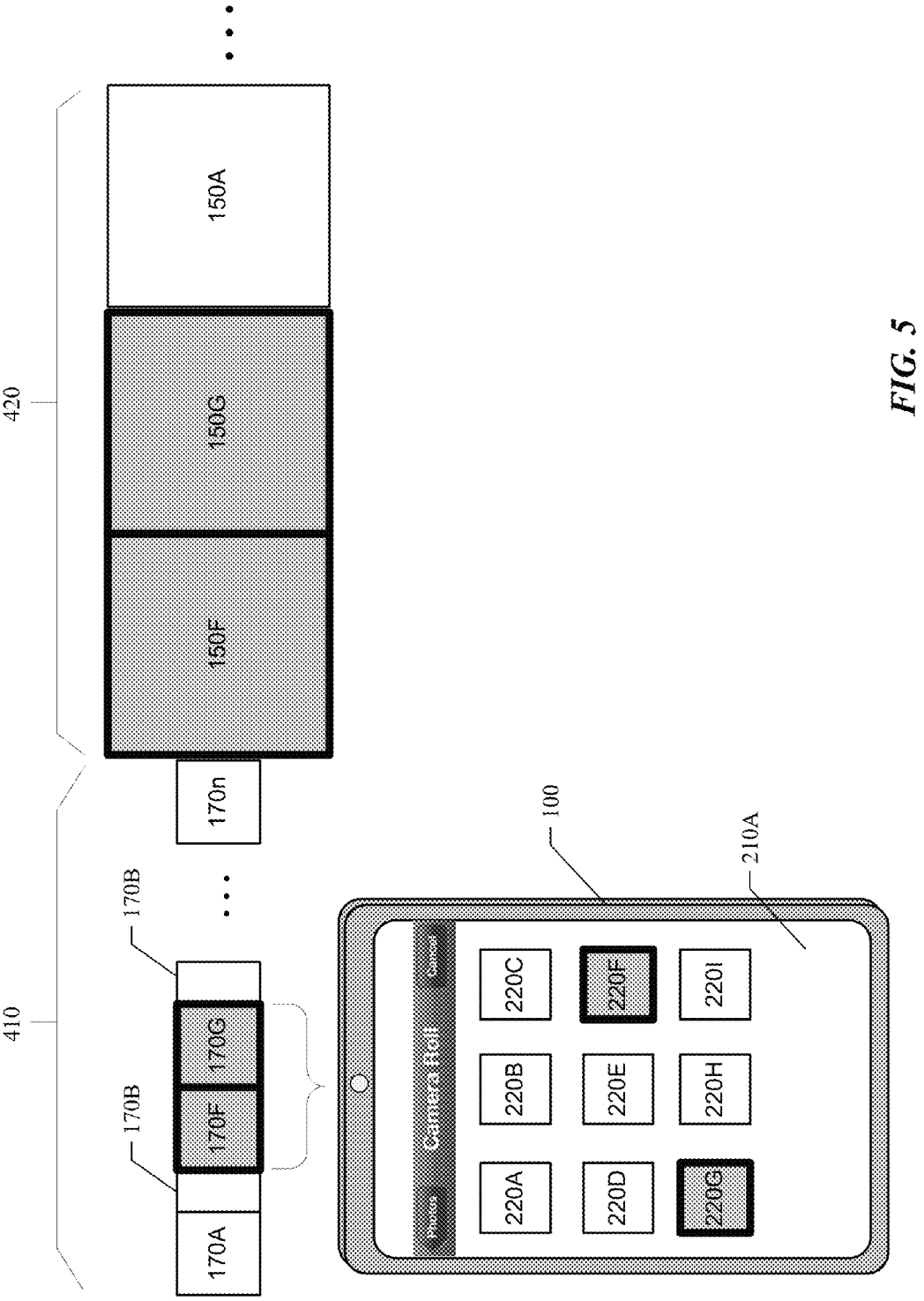

420
150A
150G
150F
170n
410
170B
170G
170F
170B
170A
100
210A
Camera Roll
220C
220B
220A
220F
220E
220D
220I
220H
220G

FIG. 5

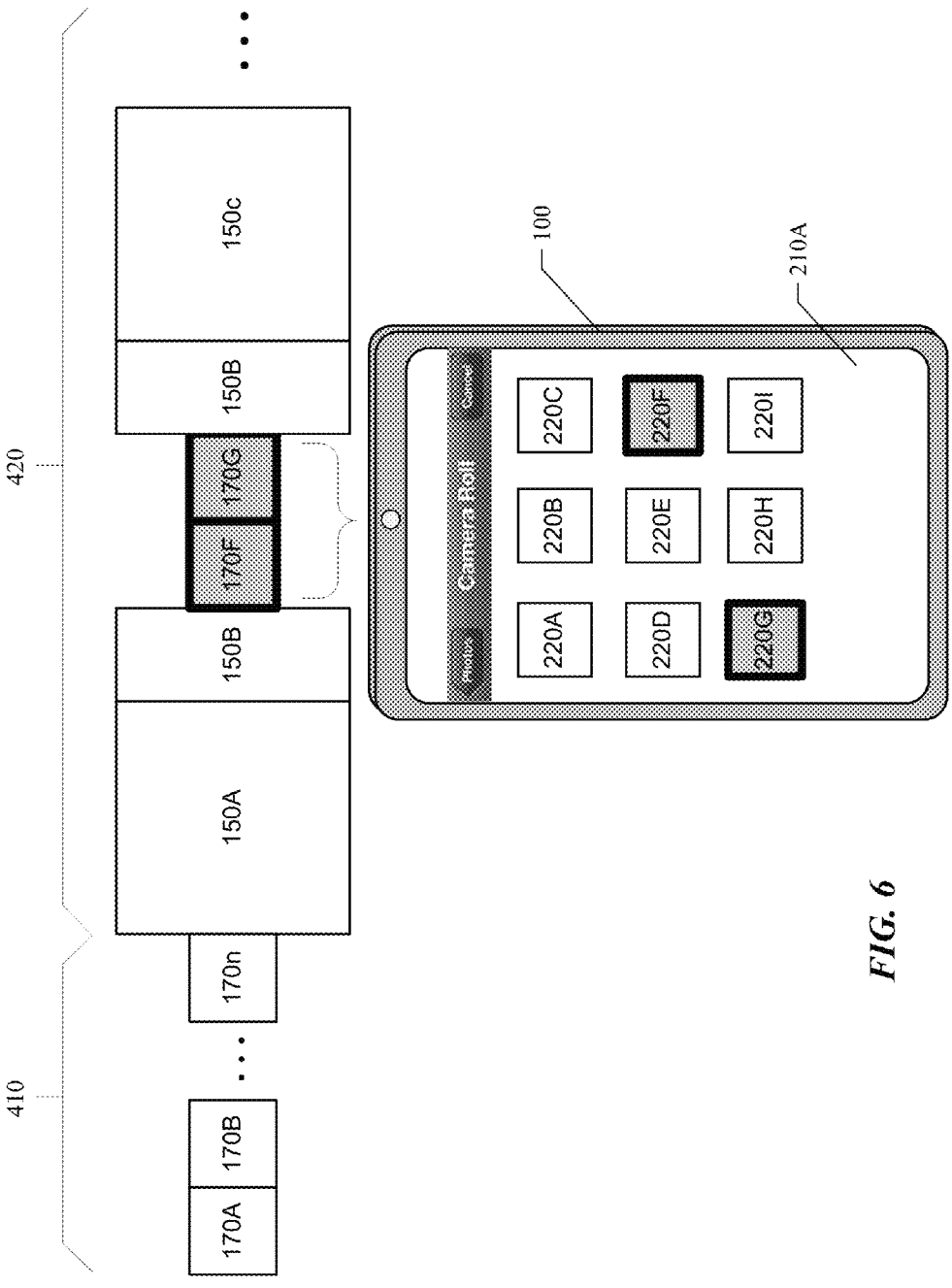

410
420
170A
170B
170n
150A
150B
170F
170G
150B
150c
100
210A
220A
220B
220C
220D
220E
220F
220G
220H
220I

FIG. 6

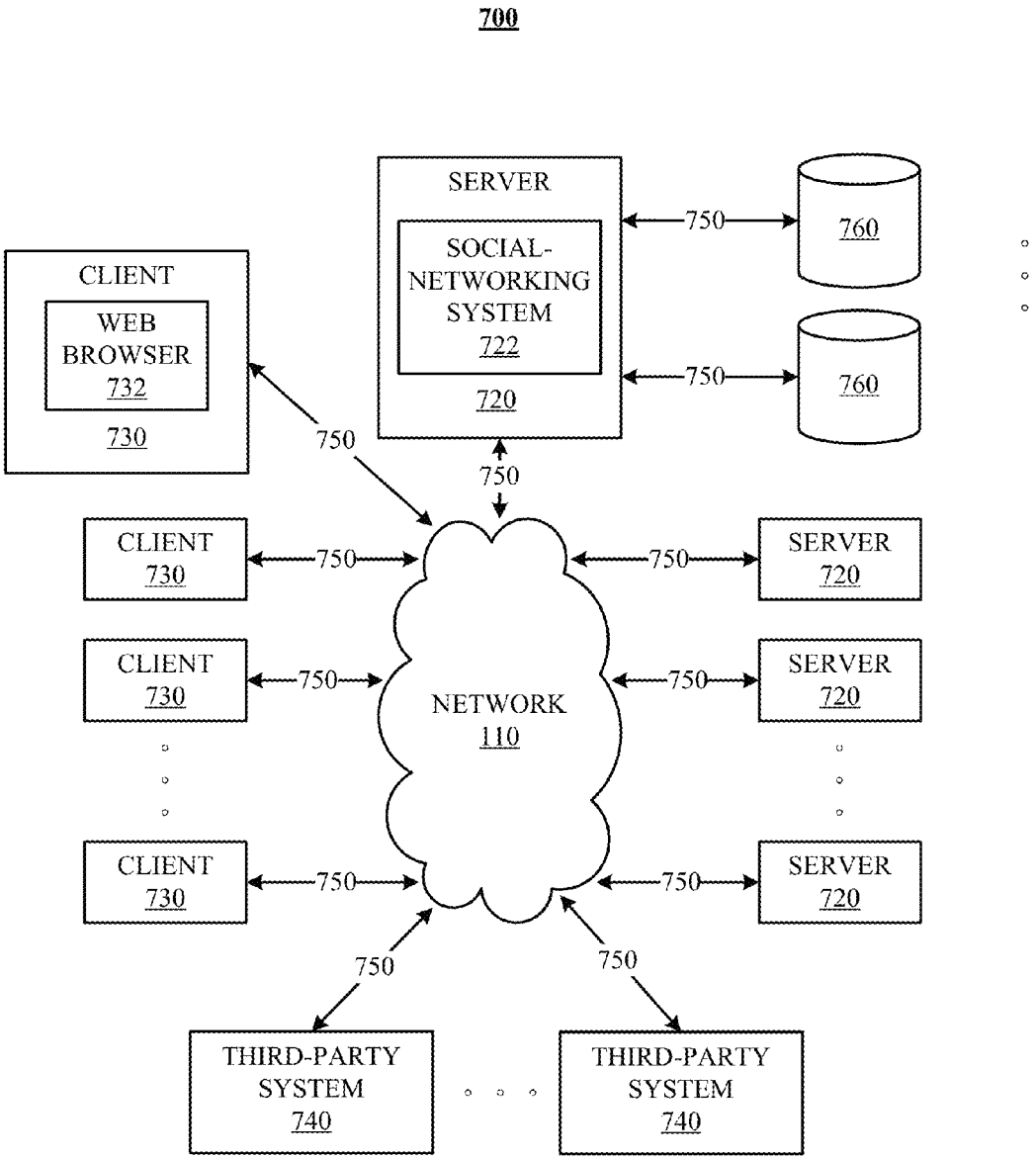

700
SERVER
SOCIAL-NETWORKING SYSTEM
722
720
760
760
750
CLIENT
WEB BROWSER
732
730
NETWORK
110
SERVER
720
THIRD-PARTY SYSTEM
740

FIG. 7

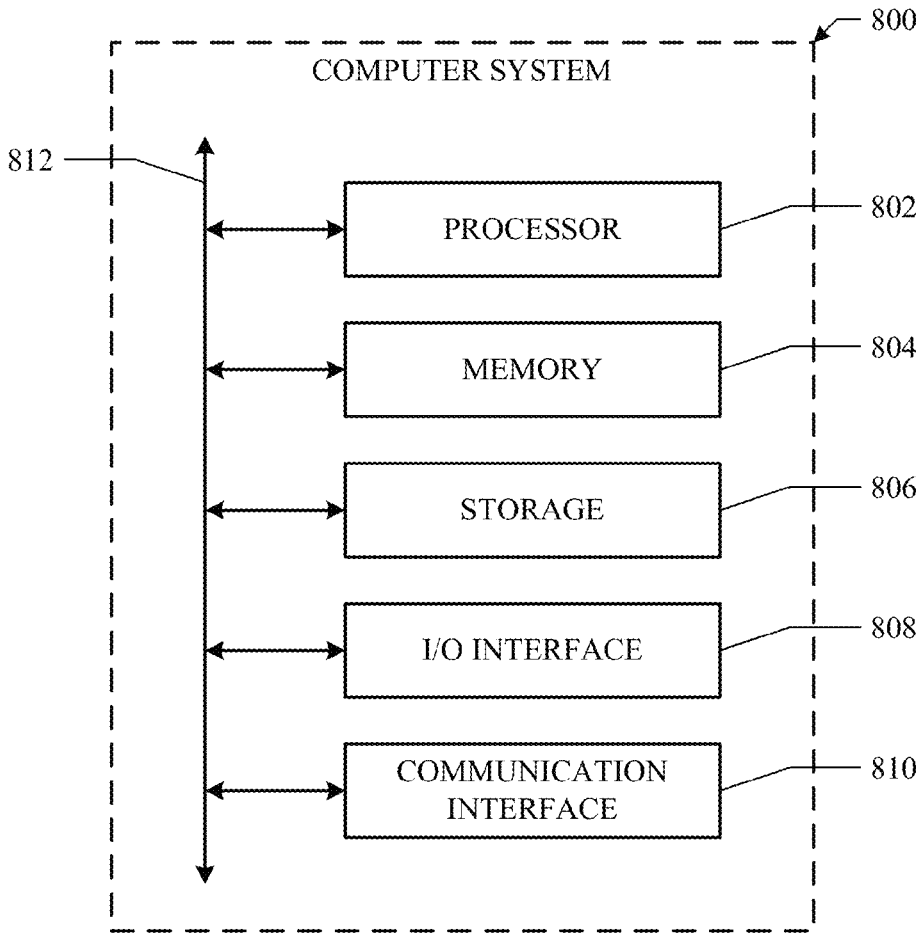

800
COMPUTER SYSTEM
812
PROCESSOR
802
MEMORY
804
STORAGE
806
I/O INTERFACE
808
COMMUNICATION INTERFACE
810

FIG. 8

PROGRESSIVE BACKGROUND UPLOADING

TECHNICAL FIELD

This disclosure generally relates to uploading images from a client to a server.

BACKGROUND

A mobile computing device—such as a smartphone, tablet computer, or laptop computer—may include functionality for determining its location, direction, or orientation, such as a GPS receiver, compass, or gyroscope. Such a device may also include functionality for communicating with one or more wireless networks, such as one or more wireless local area networks (WLANs) or cellular telephone networks. Such a device may also include one or more cameras, touchscreens, microphones, or speakers. Social-networking applications may be available for mobile computing devices. With such applications, users may connect, communicate, and share information with other users in their social networks.

SUMMARY

Particular embodiments may reduce or eliminate problems often associated with uploading images or other content from a mobile computing device.

In particular embodiments, a mobile computing device may progressively upload images of various resolutions. The mobile computing device may upload to a server of a social-networking system a lower-resolution (or smaller-file-size) version of a selected image before uploading a higher-resolution (or larger-file-size) version of the image. For example, a user of a social-networking system may take a photograph with the mobile computing device and, immediately after taking the photograph, upload a lower resolution version of the photograph to a server of the social-networking system. The mobile computing device may later, when uploading conditions have improved, upload a higher-resolution version of the photograph to a server of the social-networking system. The later upload may occur automatically, for example, in response to the mobile computing device detecting improved upload conditions. When uploaded, the higher-resolution version of the photograph may replace the lower-resolution version of the photograph in the social-networking system. Such progressive uploading may facilitate the use or sharing (such as posting to walls or timelines of users' profiles) of images or other content closer in time to the events that they are associated with.

Particular embodiments may provide a user interface on a mobile computing device that enables a user to select one or more images on the mobile computing device to upload, post, or otherwise transmit to, for example, a social network. After selecting the one or more images to upload but before the user selects an option to upload or post the one or more images, the mobile computing device begins transmitting a small-sized image. At a later time, a larger-sized image may be uploaded by the mobile computing device. As a result, images may be uploaded and posted to, for example, a social network in a quicker, more efficient manner than typical methods.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates an example mobile computing device for providing progressive background uploading of images, according to certain embodiments of the present disclosure;

FIGS. **2**A and **2**B illustrate example graphical user interfaces that may be presented to a user on the mobile computing device of FIG. **1**, according to certain embodiments of the present disclosure;

FIG. **3** illustrates an example method for providing progressive background uploading of images, in accordance with an embodiment of the disclosure;

FIGS. **4**A-B illustrate upload queues that may be utilized by the mobile computing device of FIG. **1** to progressively upload image files, in accordance with an embodiment of the disclosure;

FIG. **5** illustrates an example of interrupting the download queues of FIGS. **4**A-**4**B, in accordance with an embodiment of the disclosure;

FIG. **6** illustrates another example of interrupting the download queues of FIGS. **4**A-**4**B, in accordance with an embodiment of the disclosure;

FIG. **7** illustrates an example network architecture associated with a social network, in accordance with an embodiment of the disclosure;

FIG. **8** illustrates an example computer system for performing particular embodiments, in accordance with an embodiment of the disclosure;

The figures depict various embodiments of the present disclosure for purposes of illustration only. One skilled in the art will readily recognize from the following discussion that alternative embodiments of the structures and methods illustrated herein may be employed without departing from the principles of the invention described herein.

DESCRIPTION OF EXAMPLE EMBODIMENTS

To enable a mobile computing device to timely and efficiently communicate one or more images stored on the mobile computing device, embodiments of the disclosure provide a mechanism for progressively uploading various resolutions or sizes of images. In particular, embodiments of the invention enable a small (e.g., thumbnail-sized) image to be uploaded from a mobile computing device as soon as a user selects an image but before the user selects an option to upload the image. At a later time, a higher resolution image (e.g., the original image) may be uploaded from the mobile computing device. In some cases, this original image may replace the small image that was initially uploaded.

In one embodiment, a user interface may be provided on a mobile computing device that enables a user to select one or more images on the mobile computing device to upload, post, or otherwise transmit to, for example, a social network. After selecting the one or more images to upload but before the user selects an option to actually upload or post the one or more images, the mobile computing device begins transmitting a small-sized image. In certain embodiments, the small-sized image may be generated from an original image according to a minimally-acceptable resolution and may be transmitted to a social network using a cellular communications link. At a later time, a larger-sized image may be uploaded by the mobile computing device. For example, when the mobile computing device connects to a wireless local area network (e.g., a Wi-Fi network) at a later time, the mobile computing device may upload the original image that has a larger resolution than the small-sized image. This image may replace the small-sized image in some embodiments. As a result, images may be uploaded and posted to, for example, a social network in a quicker, more efficient manner than typical methods. Accordingly, the methods and systems described below provide for progressive background uploading of images, according the certain embodiments.

FIG. **1** illustrates an example mobile computing device **100** for providing progressive background uploading of images. Mobile computing device **100** includes memory **120**. Memory **120** may store one or more original image files **150**, one or more mid-sized image files **160**, one or more small image files **170**, and an application **180**. Mobile computing device **100** may communicate with a network **110** using a cellular communications link **130** or a wireless local area network (WLAN) link **140**. In some embodiments, WLAN link **140** may be a Wi-Fi communications link.

In general, a user may interact with mobile computing device **100** using any appropriate user interface including, for example, a graphical user interface (GUI). In doing so, the user may view and select one or more images to upload, post, or otherwise transmit (hereinafter collectively "upload") to network **110**. For example, the user may utilize a GUI on mobile computing device **100**, such as those illustrated in FIGS. **2**A and **2**B, in order to view and select one or more images to upload to a social network. However, the images stored on mobile computing device **100** that are associated with those images selected to upload are typically original image files **150** that have large resolutions and thus large file sizes. As a result, the selected images may take an extended period of time and bandwidth to upload. Embodiments of the disclosure reduce or eliminate problems associated with typical methods by uploading small image files **170** first and then original image files **150** or mid-sized image files **160** at a later time. For example, mobile computing device **100** may first upload small image file **170** when a user selects images to upload but before the user actually selects an option to upload or post the images. Mobile computing device **100** may then upload original image file **150** or mid-sized image file **160** at a later time when upload conditions improve. For example, mobile computing device **100** may upload original image file **150** or mid-sized image file **160** when mobile computing device **100** has established a WLAN communications link **140**. In some embodiments, mobile computing device **100** may establish one or more queues for uploading the various sizes of images. FIGS. **4**A and **4**B below illustrate various embodiments of queues that may be utilized in some embodiments.

Mobile computing device **100** may be any device that is capable of communicating with network **110**. In some embodiments, mobile computing device **100** may be a mobile telephone, a smartphone, a laptop computer, a digital audio player, a tablet computer, and the like. Mobile computing device **100** may include memory **120** that is capable of storing content such as one or more original image files **150**, one or more mid-sized image files **160**, one or more small image files **170**, or application **180**.

Cellular communications link **130** may be any appropriate radio-frequency based communications link in which mobile computing device **100** utilizes to communicate with a radio transceiver. For example, cellular communications link **130** may be a communications link that utilizes any version of the Global System for Mobile Communications (GSM) standard. In other embodiments, any other appropriate communications standard may be utilized for cellular communications link **130**. Mobile computing device **100** may communicate data, including original image file **150**, mid-sized image file **160**, or small image file **170** via cellular communications link **130**.

WLAN **140** may be any appropriate wireless local area connection. In some embodiments, WLAN communications link **140** may be any Institute of Electrical and Electronics Engineers (IEEE) 802.11 communications link (e.g., Wi-Fi). In other embodiments, any other appropriate communications standard may be utilized for WLAN communications link **140**. Mobile computing device **100** may communicate data, including original image file **150**, mid-sized image file **160**, or small image file **170** via WLAN communications link **140**. Generally, mobile computing device **100** is able to communicate data across WLAN communications link **140** at a higher rate than cellular communications link **130**.

Original image file **150** may be any image file stored on mobile computing device **100**. In certain embodiments, original image file **150** is an image file that is generated by a camera of mobile computing device **100**. Many modern mobile computing devices **100**, such as smartphones, have multi-megapixel cameras that generate image files having multi-megabyte (MB) file sizes. For example, one embodiment of mobile computing device **100** may have an 8-10 megapixel camera that generates original image files **150** having 2-5 MB file sizes. In some embodiments, original image file **150** may be an image that is received on mobile computing device **100** from another source (e.g., via email and the like). Transmitting original image file **150** from mobile computing device **100** typically takes an extended amount of time. For example, transmitting original image file **150** via cellular communications link **130** may take up to thirty seconds or more. While particular file sizes and transmission times have been disclosed, the disclosure anticipates original image file **150** having any original file size and required transmission time.

Mid-sized image file **160** may be any image file that has a smaller/reduced resolution or file size than original image file **150** but a larger resolution or file size than small image file **170** discussed below. In certain embodiments, for example, mid-sized image file **160** may be an image file that has approximately half the resolution or file size of original image file **150**. In another embodiment, mid-sized image file **160** may be an image file that has approximately one-third of the resolution or file size of original image file **150**. In some embodiments, mid-sized image file **160** may be generated by mobile computing device **100** from original image file **150**. While particular resolutions and file sizes of mid-sized image file **160** have been discussed, it should be understood that mid-sized image file **160** may have any resolution or file size that is less than those of original image file **150** but greater than those of small image file **170**.

Small image file **170** may be any reduced image file that has a smaller/reduced resolution or file size than original image file **150**. In certain embodiments, small image file **170** may be a thumbnail image. In some embodiments, small image file **170** may have a resolution of approximately 960 pixels or a file size of approximately 40-80 kilobytes (kB). Small image file **170** typically takes only a short amount of time to upload from mobile computing device **100**. For example, small image file **170** may take approximately six seconds or less to upload via, for example, cellular communications link **130**. In some embodiments, original image file **150** may be generated by mobile computing device **100** from original image file **150**. While particular resolutions and file sizes of small image file **170** have been discussed, it should be understood that small image file **170** may have any resolution or file size that is less than those of original image file **150**.

In some embodiments, original image files **150**, mid-sized image files **160**, or small image files **170** may include a unique identification (ID) or a timestamp. For example, unique IDs or timestamps may be generated or otherwise accessed when original image files **150**, mid-sized image files **160**, or small image files **170** are generated. The unique IDs or timestamps may be attached to original image files **150**, mid-sized image files **160**, or small image files **170** by, for example, embedding

the unique IDs or timestamps in metadata of the generated image file. The unique ID or timestamp may be utilized by, for example, a social network to make the images available to users of the social network. In one example, timestamps of images are utilized to place the images on user's timelines.

FIGS. **2**A and **2**B illustrate embodiments of GUIs **210**A and **210**B that may be presented to a user on the mobile computing device **100** of FIG. **1**. In some embodiments, GUIs **210**A and **210**B may be associated with a social network such as social networking system **722** discussed below. In general, users of mobile computing device **100** may interact with GUIs **210**A and **210**B in order to select one or more images to upload from mobile computing device **100**.

GUI **210**A is one example of a GUI that a user of mobile computing device **100** may utilize to view and select one or more images **220** to upload. For example, GUI **210**A may be displayed on mobile computing device **100** in response to a user's input to view or select images to upload. GUI **210**A may graphically indicate or list one or more images **220** available to upload. Images **220** may be images that are stored in memory **120** of mobile computing device **100**. For example, images **220** may be representations of original image files **150** stored in memory **120** of mobile computing device **100**.

GUI **210**B is one example of a GUI that may be presented to a user in response to a user selecting one or more images **220** to upload. In one embodiment, GUI **210**B may be presented to a user in response to the user selecting images **220** such as images **220**F and **220**G from GUI **210**A. In another embodiment, GUI **210**B may be presented to a user in response to the user capturing images using a camera of mobile computing device **100**.

GUI **210**B includes an area where the one or more images **220** selected for uploading are displayed, a text input area **230**, a post button **240**, and a profile image **250**. Text input area **230** is an area where a user may type text to be displayed along with images **220**. For example, a user may type a description of an image **220** selected for uploading. The typed text may then be stored as metadata associated with the image **220** selected for uploading. Post button **240** is any button that allows a user to choose when to begin uploading selected images **220**. In certain embodiments, post button **240** is a visual button displayed on GUI **210**B that a user may touch or otherwise select in order to begin transmitting selected images **220** from mobile computing device **100**. In other embodiments, post button **240** can be any physical or visual button on mobile computing device **100**. Profile image **250** is an image that a user has selected as a graphical representation of himself. For example, profile image **250** is an avatar for the user on a social network.

In operation of example embodiments with reference to FIG. **1** in conjunction with FIGS. **2**A and **2**B, a user may interact with mobile computing device **100** in order to select one or more images to upload to, for example, a social network. In certain embodiments, a user may be presented by application **180** with a GUI such as GUI **210**A in which to select one or more images **220** to upload from mobile computing device **100**. Application **180** may then determine one or more images **220** selected in GUI **210**A by a user to upload. As illustrated in FIGS. **2**A and **2**B, for example, application **180** may determine images **220**F and **220**G were selected by the user to upload from mobile computing device **100**.

Application **180** may, in response to determining that a user has selected one or more images **220** to upload from mobile computing device **100**, access original image files **150** that are associated with the selected one or more images **220**. For example, application **180** may access original image files **150**F and **150**G in response to determining that a user has selected images **220**F and **220**G to upload from mobile computing device **100**. The accessed original image files **150** have an original resolution. That is, the original resolution in certain embodiments is substantially similar to a resolution of the image when it was first created or captured by a camera. In certain embodiments, the original resolution is a high resolution.

In certain embodiments, application **180** generates a reduced image file from the accessed original image file **150**. In certain embodiments, the reduced image file is small image file **170**. In some embodiments, the reduced image file is mid-sized image file **160**. In either case, the generated reduced image file has a reduced resolution or file size that is lower than the original resolution or file size of original image file **150**. As an example for illustrative purposes only, application **180** generates a small image file **170**F from original image file **150**F and a small image file **170**G from original image file **150**G. Application **180** may utilize any appropriate method for reducing or lowering the resolution of original image files **150** in order to create the reduced image.

In some embodiments, application **180** automatically uploads the one or more reduced image files from mobile computing device **100**. In certain embodiments, application **180** immediately begins transmitting the one or more reduced image files before the user selects an option to upload one or more selected images. For example, application **180** may begin transmitting small image files **170**F and **170**G from mobile computing device **100** immediately after images **220**F and **220**G are selected by a user in GUI **210**A. In certain embodiments, application **180** begins transmitting small image files **170**F and **170**G from mobile computing device **100** before a user selects post button **240** in GUI **210**B. In some embodiments, the upload of small image file **170** makes small image file **170** available for access at least in part by one or more other users at an immediate point in time. As used herein, an "immediate point in time" may refer in some embodiments to a time that is of or near the present time with respect to the creation of content by a first user or selection of the content by the first user. For example, an "immediate point in time" may refer to a time that is of or near the present time with respect to a user of mobile computing device **100** capturing an image using a camera of computing device **100**. In another example, an "immediate point in time" may refer to a time that is of or near the present time with respect to a user of mobile computing device **100** selecting an image on computing device **100** to upload.

In certain embodiments, application **180** transmits original image file **150** from mobile computing device **100** after the automatic transmission of the reduced image file. In some embodiments, application **180** transmits original image file **150** from mobile computing device **100** in response to a pre-determined upload condition. For example, application **180** may transmit original image files **150**F and **150**G at a later time from when it transmitted small image files **170**F and **170**G from mobile computing device **100**. In some embodiments, original image file **150** is transmitted at a later time according to predetermined intervals. For example, original image file **150** is transmitted ten seconds, thirty seconds, a minute, or any other amount of time after the reduced file is transmitted.

In some embodiments, the reduced image file and original image file **150** are transmitted via different communications links. For example, the reduced image file may be immediately transmitted from mobile computing device **100** using cellular communications link **130**. This may be, for example, in response to a determination by application **180** that mobile

computing device **100** is not connected via WLAN **140**. Then, after a pre-determined upload condition occurs, such as mobile computing device **100** establishing a connection via WLAN **140**, application **180** may transmit original image file **150** from mobile computing device **100** via WLAN **140**. As an example for illustrative purposes only, consider a scenario where a user utilizes mobile computing device **100** at a location that does not provide Wi-Fi access. While at this location, the user may wish to upload an image from mobile computing device **100** to a social network. Once the user selects the image using, for example, GUI **210**A, mobile computing device **100** immediately begins uploading a reduced image file of the selected image to the social network using cellular communications link **130**. As a result, the selected image may be viewable by other users of the social network at an immediate point in time without having to wait for a large image file to be uploaded across cellular communications link **130**. Then, at a later time when mobile computing device **100** establishes a Wi-Fi connection at, for example, the user's home, mobile computing device **100** may then upload original image file **150** to the social network. The social network may, in some cases, replace the reduced image file with the original image file.

In some embodiments, application **180** may transmit mid-sized image files **160** in addition to small image file **170**. For example, application **180** may transmit, after the automatic transmission of a small image file **170** from mobile computing device **100**, a mid-sized image file **160** that was also generated from original image file **150**. The transmission of mid-sized image file **160** may occur before, after, or in the place of original image file **150**. As discussed above, the mid-sized image file has a mid-sized resolution that is lower than the resolution of original image file **150** but is higher than the resolution of small image file **170**.

In certain embodiments, a social network receives the reduced image file that was originally transmitted by mobile computing device **100**. In some embodiments, the social network may perform facial recognition on the reduced image. For example, the social network may analyze small image file **170** in order to determine one or more users of the social network that are shown in the small image file **170**.

In some embodiments, the resolution of the generated reduced image file is substantially equal to a minimally-acceptable resolution. In some embodiments, the minimally-acceptable resolution may be hard-coded into application **180**, may be determined by application **180** according to one or more business rules, may be a predetermined value stored in mobile computing device **100**, or may be communicated from, for example, a server of a social network. After determining or otherwise accessing the minimally-acceptable resolution, application **180** may generate the reduced image file from original image file **150** according to the minimally-acceptable resolution. For example, if application **180** determines that the minimally-acceptable resolution is 150×150 pixels, it may generate a small image file **170** having a resolution substantially equal to 150×150 pixels from original image file **150**.

In embodiments where application **180** determines the minimally-acceptable resolution according to one or more business rules, application **180** may first determine what type of image **220** the user has selected to upload. For example, application **180** may determine from a portion of a GUI that the user is attempting to upload an image **220** to be used as the user's profile image **250**, a cover photo, a general photo, a newsfeed photo, or any other appropriate type of image. Application **180** may also access one or more business rules. The business rules may be stored on mobile computing device **100** or on a system within network **110** such as, for example, a server of a social network. The business rules may indicate instructions for each type of image **220**. As one example, the business rules may indicate that profile images should have a resolution of 150×150 pixels. After determining the appropriate business rule, application **180** may generate the reduced image file according to the determined business rule.

FIG. **3** illustrates an example method **300** for providing progressive background uploading of content. Method **300** may be utilized, for example, by application **180** on mobile computing device **100** to upload one or more images of various file sizes or resolutions from mobile computing device **100**. Method **300** begins in step **310** where a first instance of content to be uploaded to a server is accessed. In some embodiments, an original image file is accessed according to one or more images selected by a user to upload. For example, application **180** may determine one or more image **220** are selected by a user in a GUI **210**A to upload from mobile computing device **100**. In response, application **180** may access original image file **150** as discussed above. The first instance has a first file size. In certain embodiments, the content may be an image, a video, music, or any other appropriate content.

In step **320**, a second instance of the content of step **310** is generated. For example, a reduced image file is generated from the original image file accessed in step **310**. In some embodiments, the reduced image file is small image file **170** discussed above. In some embodiments, the reduced image file is mid-sized image file **160** discussed above. In either case, the second instance has a second file size that is smaller than the first file size. For example, the reduced image file generated in step **330** has a reduced resolution or file size which is lower than the original resolution or file size of the original image file of step **320**.

In step **330**, the second instance of step **320** is automatically uploaded to the server, making the content available for access at least in part by one or more users at an immediate point in time. For example, the reduced image file generated in step **320** is automatically uploaded from the mobile computing device. In some embodiments, this includes transmitting the reduced image file before the user selects an option to upload the one or more selected images from mobile computing device **100**. For example, the reduced image file may be automatically transmitted in step **330** after a user selects one or more images **220** using GUI **210**A but before a user selects post button **240** in GUI **210**B. In some embodiments, the second instance of the content is uploaded to a social network. The upload of the second instance makes the content available for access at least in part by one or more second users at an immediate point in time.

In step **340**, which is an optional step, the first instance of the content is automatically uploaded to the server. For example, the original image file of step **310** is uploaded from the mobile computing device after the automatic uploading of the reduced image file in step **330**. In certain embodiments, step **340** occurs in response to a pre-determined upload condition. For example, the pre-determined upload condition may include upload conditions improving for the mobile computing device. Example of upload conditions improving may include establishing a WLAN connection (e.g., establishing a Wi-Fi connection), bandwidth becoming available over an existing cellular or WLAN communications link, a signal strength of an existing cellular or WLAN communications link improving, or any other condition in which the mobile computing device is able to upload content at a faster rate. In some embodiments, the first instance of the content is uploaded to a social network. In certain embodiments, the

first instance of the content (e.g., the original image file) replaces the second instance (e.g., the reduced image file). After step **340**, method **300** ends.

In some embodiments, users may select multiple images **220** to upload from mobile computing device **100**. To accommodate this, some embodiments of mobile computing device **100** may establish one or more queues for uploading the various sizes of images.

FIGS. **4**A and **4**B below illustrate various embodiments of upload queues that may be utilized in some embodiments.

FIGS. **4**A and **4**B illustrate upload queues **410**, **420**, and **430** that may be utilized by mobile computing device **100** to progressively upload multiple small image files **170**, mid-sized image files **160**, or original image files **150**. In FIG. **4**A, a first queue **410** includes multiple small image files **170** and a second queue **420** includes multiple original image files **150**. In FIG. **4**B, first queue **410** includes multiple small image files **170**, second queue **420** includes multiple mid-sized image files **160**, and third queue **430** includes multiple original image files **150**. While FIG. **4**B illustrates second queue **420** including multiple mid-sized image files **160** and third queue **430** including multiple original image files **150**, other embodiments may be reversed in which second queue **420** includes multiple original image files **150** and third queue **430** includes multiple mid-sized image files **160**.

As discussed above, a user may utilize a GUI such as GUI **210**A to select multiple images **220** for upload. Upon detecting that a user has selected multiple images for uploading, application **180** may immediately in the background begin uploading reduced image files according to first queue **410**. For example, if the user selects four images **220**A-**220**D for uploading, application **180** may generate small image files **170**A-**170**D and then generate first queue **410** that indicates the order in which to upload small image files **170**A-**170**D. Application **180** may then immediately begin uploading the generated files according to first queue **410** before the user further interacts with mobile computing device **100**. For example, application **180** may first upload small image file **170**A. After small image file **170**A is uploaded, small image file **170**B may be uploaded, and so on. After the last file in first queue **410** is uploaded (e.g., small image file **170**D is uploaded), some embodiments may immediately or after a predetermined interval begin uploading original image files **150** according to second queue **420**. In some embodiments, second queue **420** may begin after a pre-determined upload condition occurs, as discussed above. As illustrated, original image file **150**A may be uploaded first. After original image file **150**A is uploaded, original image file **150**B is uploaded, and so on until the last file in second queue **420** is uploaded (e.g., original image file **150**D is uploaded). As described above, second queue **420** may begin immediately after first queue **410** is completed, when mobile computing device **100** establishes a connection to WLAN **140**, or any appropriate interval (e.g., 30 seconds later, a minute later, etc.).

In some embodiments, as illustrated in FIG. **4**B, mid-sized image files **160** may additionally be uploaded via an upload queue. In the illustrated embodiment, second queue **420** includes multiple mid-sized image files **160** that are uploaded sequentially before original image files **150** are uploaded via third queue **430**. It should be noted, however, that some embodiments may upload mid-sized image files **160** in third queue **430** after original image files **150** are uploaded in second queue **420**.

FIG. **5** illustrates an example embodiment in which the download queues of FIGS. **4**A and **4**B are interrupted in order to upload reduced image files according to a current selection by a user. In this embodiment, mobile computing device **100** is in the process of uploading small image files **170** according to first queue **410** when a user selects one or more images **220** to upload. For example, a user utilizes GUI **210**A to select image **220**F and **220**G to upload from mobile computing device **100**. When application **180** detects that the user has selected the images **220** to upload, it may generate reduced image files for the selected images (e.g., small image files **170**F and **170**G) and suspend the transmission of first queue **410**. In this case, for example, mobile computing device **100** suspends uploading small image file **170**B. Application **180** then transmits the reduced selected images (e.g., small image files **170**F and **170**G) from mobile computing device **100** after the suspension of first queue **410**. After completing uploading small image files **170**F and **170**G, application **180** may continue uploading first queue **410**. In this example, application **180** continues where it left off by uploading the remainder of small image file **170**B.

In some embodiments, application **180** may alter any subsequent upload queues in which original image files **150** are uploaded according to a current user selection. For example, as illustrated in FIG. **5**, original image files **150**F and **150**G are placed at the first of second queue **420**. As soon as first queue **410** is completed, application **180** may begin second queue **420** by uploading original image file **150**F.

FIG. **6** illustrates another example embodiment in which the download queues of FIGS. **4**A and **4**B are interrupted in order to upload reduced image files according to a current selection by a user. In this embodiment, mobile computing device **100** is in the process of uploading original image files **150** according to second queue **420** when a user selects one or more images **220** to upload. For example, a user utilizes GUI **210**A to select image **220**F and **220**G to upload from mobile computing device **100**. When application **180** detects that the user has selected the images **220** to upload, it may generate reduced image files for the selected images (e.g., small image files **170**F and **170**G) and suspend the transmission of second queue **420**. In this case, for example, mobile computing device **100** suspends uploading original image file **150**B. Application **180** then transmits the reduced selected images (e.g., small image files **170**F and **170**G) from mobile computing device **100** after the suspension of second queue **420**. After completing uploading small image files **170**F and **170**G, application **180** may continue uploading according to second queue **420**. In this example, application **180** continues where it left off by uploading the remainder of original image file **150**B.

In some embodiments, the download queues of FIGS. **4**A and **4**B may be interrupted by a command transmitted to mobile computing device **100** instead of by a user selecting one or more images **220** to upload. For example, a server of a social network may send a command to application **180** on mobile computing device **100** to send a reduced image file for a particular image located on mobile computing device **100**. This may interrupt whichever download queue is currently in progress on mobile computing device **100** as discussed above. In some embodiments, the download queues may reside entirely external to mobile computing device **100**. For example, the download queues may reside on a server of a social network. In these embodiments, commands are transmitted to mobile computing device **100** in order to begin uploading images that are stored on mobile computing device **100**.

While particular embodiments have been illustrated using image files, other embodiments may progressively upload any other appropriate content. For example, some embodiments may progressively upload video files of different resolutions or files sizes. Other embodiments may progressively

upload music files of different audio quality or file sizes. The disclosure anticipates progressively uploading any appropriate content and is not limited to image files.

FIG. **7** illustrates an example network environment **700**. Network environment **700** includes network **110** coupling one or more servers **720** and one or more clients **730** to each other. In particular embodiments, network **110** also enables servers **720** to transmit data to or from third-party systems **740**. In particular embodiments, network **110** is an intranet, an extranet, a virtual private network (VPN), a local area network (LAN), a wireless LAN (WLAN), a wide area network (WAN), a metropolitan area network (MAN), a portion of the Internet, a cellular technology-based network, a satellite communications technology-based network, or another network **110** or a combination of two or more such networks **110**. This disclosure contemplates any suitable network **110**.

One or more links **750** couple a server **720** or a client **730** to network **110**. In particular embodiments, one or more links **750** each includes one or more wireline, wireless, or optical links **750**. In particular embodiments, one or more links **750** each includes an intranet, an extranet, a VPN, a LAN, a WLAN, a WAN, a MAN, a portion of the Internet, a cellular technology-based network, a satellite communications technology-based network, or another link **750** or a combination of two or more such links **750**. This disclosure contemplates any suitable links **750** coupling servers **720** and clients **730** to network **110**.

In particular embodiments, each server **720** may be a unitary server or a distributed server spanning multiple computers or multiple datacenters. Servers **720** may be of various types, such as, for example and without limitation, web server, news server, mail server, message server, advertising server, file server, application server, exchange server, database server, proxy server, another server suitable for performing functions or processes described herein, or any combination thereof. In particular embodiments, each server **720** may include hardware, software, or embedded logic components or a combination of two or more such components for carrying out the appropriate functionalities implemented or supported by server **720**. For example, a web server is generally capable of hosting websites containing web pages or particular elements of web pages. More specifically, a web server may host HTML files or other file types, or may dynamically create or constitute files upon a request, and communicate them to clients **730** in response to HTTP or other requests from clients **730**. A mail server is generally capable of providing electronic mail services to various clients **730**. A database server is generally capable of providing an interface for managing data stored in one or more data stores. In particular embodiments, a social-networking system **722** may be hosted on a server **720**.

The social networking system **722** comprises one or more computing devices storing a social network, or a social graph, comprising a plurality of users and providing users of the social network with the ability to communicate and interact with other users of the social network. According to various embodiments, the social networking system **722** may comprise a website, or alternatively a server that can be accessed through network **110** by client devices **730** or third-party content object providers **740**. In use, users join the social networking system **722** and then add connections (i.e., relationships) to a number of other users of the social networking system **722** to whom they desire to be connected. As used herein, the term "friend" refers to any other user of the social networking system **722** to whom a user has formed a connection, association, or relationship via the social networking system **722**. Connections may be added explicitly by a user or may be automatically created by the social networking systems **722** based on common characteristics of the users (e.g., users who are alumni of the same educational institution). For example, a first user specifically selects a particular other user to be a friend. Connections in the social networking system **722** are usually in both directions, but need not be, so the terms "user" and "friend" depend on the frame of reference. Connections between users of the social networking system **722** are usually bilateral, or "mutual," but connections may also be unilateral, or "one-way." For example, if Bob and Joe are both users of the social networking system **722** and connected to each other, Bob and Joe are each other's connections. If, on the other hand, Bob wishes to connect to Joe to view data communicated to the social networking system by Joe but Joe does not wish to form a mutual connection, a unilateral connection may be established. The connection between users may be a direct connection; however, some embodiments of a social networking system allow the connection to be indirect via one or more levels of connections or degrees or separation. Using a social graph, therefore, a social networking system may keep track of many different types of objects and the interactions and connections among those objects, thereby maintaining an extremely rich store of socially relevant information.

In addition to establishing and maintaining connections between users and allowing interactions between users, the social networking system **722** provides users with the ability to take actions on various types of items, or objects, supported by the social networking system **722**. These items may include groups or networks (where "networks" here refer not to physical communication networks, but rather social networks of people, entities, and concepts) to which users of the social networking system may belong, events or calendar entries in which a user might be interested, computer-based applications that a user may use via the social networking system **722**, transactions that allow users to buy or sell items via the service, and interactions with advertisements that a user may perform on or off the social networking system.

These are just a few examples of the items upon which a user may act on a social networking system, and many others are possible. A user may interact with anything that is capable of being represented in the social networking system **722** or by an external system of the third-party content object provider **740**, which is separate from the social networking system **722** and coupled to the social networking system **722** via network **110**.

The social networking system **722** is also capable of linking a variety of entities. For example, the social networking system **722** enables users to interact with each other as well as receive content from third-party content object providers **740** or other entities, or to allow users to interact with these entities through an API or other communication channels.

In particular embodiments, one or more data storages **760** may be communicatively linked to one or more severs **720** via one or more links **750**. In particular embodiments, data storages **760** may be used to store various types of information. In particular embodiments, the information stored in data storages **760** may be organized according to specific data structures. In particular embodiments, each data storage **760** may be a relational database. Particular embodiments may provide interfaces that enable servers **720** or clients **730** to manage, e.g., retrieve, modify, add, or delete, the information stored in data storage **760**.

In particular embodiments, each client **730** may be an electronic device including hardware, software, or embedded logic components or a combination of two or more such components and capable of carrying out the appropriate func-

tionalities implemented or supported by client **730**. For example and without limitation, a client **730** may comprise a computer system such as: a desktop computer, a notebook or laptop, a netbook, a tablet, an e-book reader, a GPS device, a camera, a personal digital assistant (PDA), a handheld electronic device, a mobile telephone, or another similar processor-based electronic device. This disclosure contemplates any suitable clients **730**. A client **730** may enable a network user at client **730** to access network **730**. A client **730** may enable its user to communicate with other users at other clients **730**. In particular embodiments, a client device **730** may comprise a mobile computing device **300** as described in FIGS. **3**A and **3**B.

A client **730** may have a web browser **732**, such as MICROSOFT® INTERNET EXPLORER®, GOOGLE CHROME™ or MOZILLA FIREFOX®, and may have one or more add-ons, plug-ins, or other extensions, such as TOOLBAR or YAHOO TOOLBAR®. A user at client **730** may enter a Uniform Resource Locator (URL) or other address directing the web browser **732** to a server **720**, and the web browser **732** may generate a Hyper Text Transfer Protocol (HTTP) request and communicate the HTTP request to server **720**. Server **720** may accept the HTTP request and communicate to client **730** one or more Hyper Text Markup Language (HTML) files responsive to the HTTP request. Client **730** may render a web page based on the HTML files from server **720** for presentation to the user. This disclosure contemplates any suitable web page files. As an example and not by way of limitation, web pages may render from HTML files, Extensible Hyper Text Markup Language (XHTML) files, or Extensible Markup Language (XML) files, according to particular needs. Such pages may also execute scripts such as, for example and without limitation, those written in JAVASCRIPT®, JAVA®, MICROSOFT® SILVERLIGHT®, combinations of markup language and scripts such as AJAX (Asynchronous JAVASCRIPT® and XML), and the like. Herein, reference to a web page encompasses one or more corresponding web page files (which a browser may use to render the web page) and vice versa, where appropriate.

In particular embodiments, each third-party system **740** may comprise (1) one or more types of servers, (2) one or more data stores, (3) one or more interfaces, including but not limited to application programming interfaces (API), (4) one or more web services, (5) one or more content sources, (6) one or more networks, or any other conventional element that might be included in a third-party system to or from which server **720** might transmit data. A third-party system **740** may be operated by a different entity from the entity operating social-networking system **722**. In particular embodiments, however, the social networking system **722** and the third-party systems **740** may operate in conjunction to provide social networking services to users of the social networking system **722**. In this sense, the social networking system **722** may provide a platform, or backbone, which other systems, such as third-party systems **740**, may use to provide social networking services and functionality to users across the Internet.

In particular embodiments, a third-party system **740** may comprise a third-party content object provider. A third-party content object provider **740** comprises one or more sources of content objects, which are communicated to the client device **730** at appropriate times. In one embodiment, the third-party content object provider **740** is a separate entity from the social networking system **722**. For example, the third-party content object provider **740** is associated with a first domain while the social networking system **722** is associated with a separate social networking domain. In various embodiments, the third-party content object provider **740** is located on a website or alternatively a server, separate or in conjunction from the website or server that hosts the social networking system **722**.

The third-party content objects, as the term is used herein, include any content object generated by a third-party content object provider **740** rather than by a user of the social networking system **722**. Content objects generally may include information regarding things or activities of interest to the user. Third-party content objects include informational content objects, such as movie show times, movie reviews, restaurant reviews, restaurant menus, product information and reviews, etc., as well as incentive content objects, such as coupons, discount tickets, gift certificates, etc. according to one embodiment. In addition, some third-party content objects may include a combination of information and incentives. Other examples of content objects include event content objects associated with an event (e.g., a New Year's Eve party) or ad-hoc gathering objects (e.g., an impromptu gathering of 700 people in Union Square, San Francisco). Examples of content objects and the ways in which content objects may be presented or used are described below.

The social networking system **722** also includes user-generated content objects, which enhances a user's interactions with the social networking system **722**. User-generated content may include anything a user can add, upload, send, or "post," to the social networking system **722**. For example, a user communicates posts to the social networking system **722** from a client device **730**. Posts may include data such as status updates or other textual data, location information, photos, videos, links, music or other similar data or media. Content may also be added to the social networking system **722** by a third-party through a "communication channel," such as a newsfeed or stream.

Content objects, generally, represent single pieces of content that are represented as objects in the social networking system **722**. In this way, users of the social networking system **722** are encouraged to communicate with each other by posting text and content objects of various types through various communication channels, increasing the interaction of users with each other and increasing the frequency with which users interact with the social networking system **722**.

FIG. **8** illustrates an example computer system **800**. In particular embodiments, one or more computer systems **800** perform one or more steps of one or more methods described or illustrated herein. In particular embodiments, one or more computer systems **800** provide functionality described or illustrated herein. In particular embodiments, software running on one or more computer systems **800** performs one or more steps of one or more methods described or illustrated herein or provides functionality described or illustrated herein. Particular embodiments include one or more portions of one or more computer systems **800**.

This disclosure contemplates any suitable number of computer systems **800**. This disclosure contemplates computer system **800** taking any suitable physical form. As example and not by way of limitation, computer system **800** may be an embedded computer system, a system-on-chip (SOC), a single-board computer system (SBC) (such as, for example, a computer-on-module (COM) or system-on-module (SOM)), a desktop computer system, a laptop or notebook computer system, an interactive kiosk, a mainframe, a mesh of computer systems, a mobile telephone, a personal digital assistant (PDA), a server, a tablet computer system, or a combination of two or more of these. Where appropriate, computer system **800** may include one or more computer systems **800**; be unitary or distributed; span multiple locations; span multiple machines; span multiple datacenters; or reside in a cloud,

which may include one or more cloud components in one or more networks. Where appropriate, one or more computer systems **800** may perform without substantial spatial or temporal limitation one or more steps of one or more methods described or illustrated herein. As an example and not by way of limitation, one or more computer systems **800** may perform in real time or in batch mode one or more steps of one or more methods described or illustrated herein. One or more computer systems **800** may perform at different times or at different locations one or more steps of one or more methods described or illustrated herein, where appropriate.

In particular embodiments, computer system **800** includes a processor **802**, memory **804**, storage **806**, an input/output (I/O) interface **808**, a communication interface **810**, and a bus **812**. Although this disclosure describes and illustrates a particular computer system having a particular number of particular components in a particular arrangement, this disclosure contemplates any suitable computer system having any suitable number of any suitable components in any suitable arrangement.

In particular embodiments, processor **802** includes hardware for executing instructions, such as those making up a computer program. As an example and not by way of limitation, to execute instructions, processor **802** may retrieve (or fetch) the instructions from an internal register, an internal cache, memory **804**, or storage **806**; decode and execute them; and then write one or more results to an internal register, an internal cache, memory **804**, or storage **806**. In particular embodiments, processor **802** may include one or more internal caches for data, instructions, or addresses. Although this disclosure describes and illustrates a particular processor, this disclosure contemplates any suitable processor.

In particular embodiments, memory **804** includes main memory for storing instructions for processor **802** to execute or data for processor **802** to operate on. As an example and not by way of limitation, computer system **800** may load instructions from storage **806** or another source (such as, for example, another computer system **800**) to memory **804**. Processor **802** may then load the instructions from memory **804** to an internal register or internal cache. To execute the instructions, processor **802** may retrieve the instructions from the internal register or internal cache and decode them. During or after execution of the instructions, processor **802** may write one or more results (which may be intermediate or final results) to the internal register or internal cache. Processor **802** may then write one or more of those results to memory **804**. In particular embodiments, processor **802** executes only instructions in one or more internal registers or internal caches or in memory **804** (as opposed to storage **806** or elsewhere) and operates only on data in one or more internal registers or internal caches or in memory **804** (as opposed to storage **806** or elsewhere). One or more memory buses (which may each include an address bus and a data bus) may couple processor **802** to memory **804**. Bus **812** may include one or more memory buses, as described below. In particular embodiments, one or more memory management units (MMUs) reside between processor **802** and memory **804** and facilitate accesses to memory **804** requested by processor **802**. Although this disclosure describes and illustrates particular memory, this disclosure contemplates any suitable memory.

In particular embodiments, storage **806** includes mass storage for data or instructions. Storage **806** may include removable or non-removable (i.e., fixed) media, where appropriate. Storage **806** may be internal or external to computer system **800**, where appropriate. In particular embodiments, storage **806** is non-volatile, solid-state memory. Where appropriate, storage **806** may include one or more storages **806**. Although this disclosure describes and illustrates particular storage, this disclosure contemplates any suitable storage.

In particular embodiments, I/O interface **808** includes hardware, software, or both providing one or more interfaces for communication between computer system **800** and one or more I/O devices. Computer system **800** may include one or more of these I/O devices, where appropriate. One or more of these I/O devices may enable communication between a person and computer system **800**. As an example and not by way of limitation, an I/O device may include a keyboard, keypad, microphone, monitor, mouse, printer, scanner, speaker, still camera, stylus, tablet, touchscreen, trackball, video camera, another suitable I/O device or a combination of two or more of these. An I/O device may include one or more sensors. This disclosure contemplates any suitable I/O devices and any suitable I/O interfaces **808** for them. Where appropriate, I/O interface **808** may include one or more device or software drivers enabling processor **802** to drive one or more of these I/O devices. I/O interface **808** may include one or more I/O interfaces **808**, where appropriate. Although this disclosure describes and illustrates a particular I/O interface, this disclosure contemplates any suitable I/O interface.

In particular embodiments, communication interface **810** includes hardware, software, or both providing one or more interfaces for communication (such as, for example, packet-based communication) between computer system **800** and one or more other computer systems **800** or one or more networks. As an example and not by way of limitation, communication interface **810** may include a network interface controller (NIC) or network adapter for communicating with an Ethernet or other wire-based network or a wireless NIC (WNIC) or wireless adapter for communicating with a wireless network, such as a Wi-Fi network. This disclosure contemplates any suitable network and any suitable communication interface **810** for it. Although this disclosure describes and illustrates a particular communication interface, this disclosure contemplates any suitable communication interface.

In particular embodiments, bus **812** includes hardware, software, or both coupling components of computer system **800** to each other. Although this disclosure describes and illustrates a particular bus, this disclosure contemplates any suitable bus or interconnect.

Herein, a computer-readable non-transitory storage medium or media may include one or more semiconductor-based or other integrated circuits (ICs) (such, as for example, field-programmable gate arrays (FPGAs) or application-specific ICs (ASICs)), hard disk drives (HDDs), hybrid hard drives (HHDs), optical discs, optical disc drives (ODDs), magneto-optical discs, magneto-optical drives, floppy diskettes, floppy disk drives (FDDs), magnetic tapes, solid-state drives (SSDs), RAM-drives, SECURE DIGITAL cards or drives, any other suitable computer-readable non-transitory storage media, or any suitable combination of two or more of these, where appropriate. A computer-readable non-transitory storage medium may be volatile, non-volatile, or a combination of volatile and non-volatile, where appropriate.

Herein, "or" is inclusive and not exclusive, unless expressly indicated otherwise or indicated otherwise by context. Therefore, herein, "A or B" means "A, B, or both," unless expressly indicated otherwise or indicated otherwise by context. Moreover, "and" is both joint and several, unless expressly indicated otherwise or indicated otherwise by context. Therefore, herein, "A and B" means "A and B, jointly or severally," unless expressly indicated otherwise or indicated otherwise by context.

This disclosure encompasses all changes, substitutions, variations, alterations, and modifications to the example embodiments herein that a person having ordinary skill in the art would comprehend. Moreover, although this disclosure describes and illustrates respective embodiments herein as including particular components, elements, functions, operations, or steps, any of these embodiments may include any combination or permutation of any of the components, elements, functions, operations, or steps described or illustrated anywhere herein that a person having ordinary skill in the art would comprehend. Furthermore, reference in the appended claims to an apparatus or system or a component of an apparatus or system being adapted to, arranged to, capable of, configured to, enabled to, operable to, or operative to perform a particular function encompasses that apparatus, system, component, whether or not it or that particular function is activated, turned on, or unlocked, as long as that apparatus, system, or component is so adapted, arranged, capable, configured, enabled, operable, or operative.

What is claimed is:

1. A method comprising:

by a mobile computing device, accessing a first instance of content to be uploaded to a server, wherein the first instance has a first file size;

by the mobile computing device, generating a second instance of the content from the first instance, wherein the second instance has a second file size that is smaller than the first file size;

by the mobile computing device, after the content has been selected using a first graphical user interface (GUI) but before an option in a second GUI has been selected to post the content to the server, automatically attempting to upload to the server the second instance of the content; and

by the mobile computing device, in response to occurrence of a pre-determined upload condition determined by the mobile computing device after attempting to upload the second instance of the content, automatically attempting to upload to the server the first instance of the content.

2. The method of claim **1**, wherein the content comprises an image, music, or video.

3. The method of claim **1**, wherein:

the content comprises an image;

the first instance of the content comprises a first image file for displaying the image; and

the second instance of the content comprises a second image file for displaying the image.

4. The method of claim **1**, wherein:

attempting to upload the second instance of content comprises attempting to upload the second instance of content via a cellular communications link before a user of the mobile computing device selects an option to upload the content;

the pre-determined upload condition comprises a wireless local area network communications link being established by the mobile computing device; and

the attempt to upload the first instance of the content occurs:

after the attempt to upload the second instance of the content; and

after the mobile computing device has established the wireless local area network communications link.

5. The method of claim **1**, wherein the second instance of the content is generated and the attempt to upload the second instance of the content is made in response to a determination that the mobile computing device is not connected to a wireless local area network.

6. The method of claim **1**, wherein:

the first instance of the content is selected by a user of the mobile computing device to post to a social network; and

the second instance of the content is uploaded from the mobile computing device to the social network.

7. The method of claim **1**, further comprising attempting to upload, after attempting to upload the second instance of the content, a third instance of the content generated from the first instance, wherein the third instance of the content has a third file size that is smaller than the first file size but larger than the second file size.

8. The method of claim **1**, wherein:

the server is associated with a social network; and

facial detection or recognition is performed on the second instance of the content by the social network.

9. The method of claim **1**, wherein:

the method further comprises:

generating a first upload queue comprising at least the first instance of the content; and

generating a second upload queue comprising at least the second instance of the content;

attempting to upload to the server the second instance of the content comprises attempting to upload to the server the second instance of the content according to the second upload queue; and

attempting to upload to the server the first instance of the content comprises attempting to upload to the server the first instance of the content according to the first upload queue.

10. The method of claim **1**, wherein:

the method further comprises determining a minimally acceptable resolution for images to be uploaded to a server; and

the second instance of the content is generated according to the minimally acceptable resolution for images to be uploaded to a server.

11. One or more computer-readable non-transitory storage media embodying logic that is operable when executed to:

at a mobile computing device, access a first instance of content stored in memory of the mobile computing device, wherein the first instance has a first file size;

at the mobile computing device, generate a second instance of the content from the first instance, wherein the second instance has a second file size that is smaller than the first file size;

at the mobile computing device, after the content has been selected using a first graphical user interface (GUI) but before an option in a second GUI has been selected to post the content to the server, automatically attempt to upload to a server the second instance of the content; and

at the mobile computing device, in response to occurrence of a pre-determined upload condition determined by the mobile computing device after the attempt to upload the second instance of the content, automatically attempt to upload to the server the first instance of the content.

12. The media of claim **11**, wherein the content comprises an image, music, or video.

13. The media of claim **11**, wherein:

the content comprises an image;

the first instance of the content comprises a first image file for displaying the image; and

the second instance of the content comprises a second image file for displaying the image.

14. The media of claim **11**, wherein:

attempting to upload the second instance of content comprises attempting to upload the second instance of con-

tent via a cellular communications link before a user of the mobile computing device selects an option to upload the content;

the pre-determined upload condition comprises a wireless local area network communications link being established by the mobile computing device; and

the attempt to upload the first instance of the content occurs:

after the attempt to upload the second instance of the content; and

after the mobile computing device has established the wireless local area network communications link.

15. The media of claim **11**, wherein the second instance of the content is generated and the attempt to upload the second instance of the content is made in response to a determination that the mobile computing device is not connected to a wireless local area network.

16. The media of claim **11**, wherein:

the first instance of the content is selected by a user of the mobile computing device to post to a social network; and

the second instance of the content is uploaded from the mobile computing device to the social network.

17. The media of claim **11**, wherein:

the media is further operable to attempt to upload, after attempting to upload the second instance of the content, a third instance of the content generated from the first instance; and

the third instance of the content has a third file size that is smaller than the first file size but larger than the second file size.

18. The media of claim **11**, wherein:

the logic is further operable to:

generate a first upload queue comprising at least the first instance of the content; and

generate a second upload queue comprising at least the second instance of the content;

attempting to upload to the server the second instance of the content comprises attempting to upload to the server the second instance of the content according to the second upload queue; and

attempting to upload to the server the first instance of the content comprises attempting to upload to the server the first instance of the content according to the first upload queue.

19. The media of claim **11**, wherein:

the logic is further operable to determine a minimally acceptable resolution for images to be uploaded to a server; and

the second instance of the content is generated according to the minimally acceptable resolution for images to be uploaded to a server.

20. The method of claim **1**, wherein:

the first GUI displays images of content that may be selected for uploading; and

the second GUI comprises:

an area where the content selected in the first GUI is displayed;

a text input area; and

the option to post the content and any text from the text input area to the server.

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